## Abstract of the Disclosure

The apparatus and method of the present invention operates to perform a floating-point operation involving at least two operands in floating-point representation. The apparatus comprises two concurrent data paths, a short path and a long path. The short path is used to produce a result of the floating-point operation if the floating-point operation is a subtract operation and the exponent difference of the two operands is 0, or if the floating-point operation is a subtract operation, the exponent difference is 1, and the mantissa of the operand with a larger exponent is within a predetermined number range. The long path is used to produce a result of the floating-point operation if the floating point operation is an addition operation, or if it is a subtraction operation and the exponent difference is larger than one, or if it is a subtract operation, the exponent difference is 1, and the mantissa of the operand with the larger exponent is within another predetermined number range. Using this logic for selecting a data path for the floating-point operation, the short path does not require means such as an incrementer for post subtraction normalization.